

## Climatological data for November, 1910.

## DISTRICT No. 3, OHIO VALLEY.

FERDINAND J. WALZ, District Editor.

## GENERAL SUMMARY.

Unusually cold weather for the season prevailed during nearly the whole of November, 1910, there being comparatively few days when the temperature was as high as the seasonal normal. There was no remarkably cold weather, however, that is, in the way of extremes, although the temperature averaged from 3° to 6° below the normal for November in practically all parts of the Ohio Valley. There were no great or abrupt changes in temperature, the weather being uniformly and moderately cold, and the deficiency in the temperature almost a steady accumulation.

Over much of the district, notably the central, northern, and northeastern portions, the temperature averaged the lowest for any November during the past 20 to 25 years, while over the rest of the district there have been only one or two Novembers during a similar length of time with average temperatures so low. Despite this the temperature extremes were not broken in any locality; in fact, greater extremes have been registered in many of the States of the district in nearly every other November.

The month falls into a division of three cold and three warm periods, but the cold periods were much longer than the warm ones, the latter all together covering only about 8 out of the 30 days of the month. The longest warm period extended from the 23d to the 27th, inclusive, while the longest cold period ran from the 11th to the 21st, inclusive. The coldest weather occurred about the 20th, when minimum temperatures ranged between 7° and 22°. Highest temperatures were registered on dates that differed in the various parts of the district, and they ranged between 68° and 82°.

Over most of the district the month was unusually cloudy, dark, and disagreeable, these conditions largely prevailing over western New York, western Pennsylvania, West Virginia, and the States north of the Ohio River. In Kentucky and Tennessee and over the southern border portions of the district cloudy conditions were not so pronounced, and, as a rule, the total sunshine for the month averaged between 50 and 75 per cent of the amount possible at this time of the year.

Precipitation was generally below normal for November, except in the northeastern portion of the district, where there was a remarkably heavy fall of snow for the month. Rain or snow was frequent over the northeastern portion of the district, but in other portions rains were scattered and mostly light in amount, and there was little or no snow. The most important disturbance of the month was the general rainstorm of the 27th-28th. This caused more or less heavy precipitation in nearly all parts of the district and was attended by an unusually large number of local thunderstorms for the season. Other barometric disturbances that passed over the district were of little consequence. High-pressure areas, persistent and slow in movement, largely dominated.

Rivers and streams in the Ohio River basin were generally at low stages during the month, except those in the northeastern portion of the drainage area, where the heavy snows supplied sufficient water to keep the streams at stages above normal for November. Navigation was impeded in portions of the lower Ohio River and tributaries by low water. In western Pennsylvania and northeastern Ohio the soil was well supplied with moisture, but in other portions of the district the ground had become very dry when relief came in the general rains of the 27th-28th. In some parts of the district the dryness had become so intense that both drinking and

stock water were getting scarce. Also in the tobacco-growing sections it had become impossible for the farmers to strip and prepare their tobacco for market.

## TEMPERATURE.

The average temperature of the month was below normal in all parts of the district, the amount of deficiency ranging from 3° to 6°. As a rule the greater deficiency was in the northeastern portion of the district and in the Wabash sections of Indiana and Illinois, and the lesser in the extreme western portions of Kentucky and Tennessee. The month opened with the temperature generally above normal, except over eastern Tennessee and western North Carolina. A change to colder, however, came on the 2d and during the next 5 or 6 days mean daily temperatures were from 6° to 17° below normal, and over the more northerly and easterly portions of the district minimum temperatures between 20° and 30° were registered, and over the more southerly sections from 25° to 35°. During the 9th and 10th the mean temperature was above normal and maximum temperatures ranged between 55° and 70°, but following this short warm period cold weather again set in and continued from the 11th to the 20th, when the average daily temperatures ranged from 6° to 14° below normal over practically all the district. On the 14th, however, there was a sharp warming up over Tennessee and western North Carolina, and the mean temperatures in those sections ranged from 4° to 8° above normal on that day. During the period 23d-27th mild conditions prevailed, the mean temperature ranging between 7° and 15° above normal, and maximum temperatures of from 45° to 65° were registered in northern and eastern sections and from 50° to 70° in the other portions of the district. On the 29th and 30th mean temperatures were again decidedly below normal and minimum temperatures of 20° to 30° were registered. This last cool wave set in over the western portion of the district on the 28th. The highest temperature of the month was registered in some localities on the 1st, in others on the 9th, 25th, or 27th. The highest temperature registered in the district during the month was 82° at Guntersville, Ala., on the 25th, while 80° was registered in Tennessee and 81° in Illinois on the 27th. In other States of the district the highest temperatures of the month ranged between 68° and 78°. The lowest temperature of the month occurred in nearly all parts of the district on the 20th, the lowest in the district being 7° at Burkes Garden, Va. In other States the lowest ranged between 10° and 20°. In Tennessee the lowest, 12°, occurred on the 13th.

## PRECIPITATION.

The precipitation was below normal in all parts of the district, except in the extreme northwestern portion of Pennsylvania and the bordering sections of Ohio, where there was unusually heavy snow. Precipitation was 3 inches or more over the section mentioned, also over the upper watersheds of the Kentucky River in Kentucky and at one or two stations in east-central Illinois. It was below 1 inch in southern Illinois, northwestern Tennessee, and in western North Carolina. One station, Highlands, N. C., received no precipitation whatever during the entire month. Elsewhere the monthly precipitation was between 1.5 and 2.5 inches.

Rain or snow occurred nearly every day in the northeastern portion of the district, including West Virginia and eastern Ohio, but, except over the upper watersheds of the

Allegheny River in Pennsylvania, and the Mahoning in Ohio, the daily amounts were generally small. Over the rest of the district precipitation was light and scattered during the month up to the 27th-28th, when there were general and heavy rains. Light rain occurred generally on the 2d, 5th, and the 10th in Kentucky and the States north of the Ohio River. In Tennessee and southward the precipitation was unusually light and scattered save for the rains of the 27th-28th. Over most of the district more than one-half, and in some instances as much as 80 per cent, of the precipitation of the month occurred on these two days.

The snowfall, except in the northeastern portion, was of no consequence, there being little or none even in Illinois, Indiana, and western and central Ohio. Over eastern Ohio, however, and over western Pennsylvania snowfall was unusually heavy, being greater than that for any other November during the past 25 years. In northeastern Ohio several stations reported from 10 to 19 inches of snow, and over the northern portion of western Pennsylvania the amount was generally from 10 to 35 inches. The average amount for western Pennsylvania was 11 inches, and at the close of the month this portion of the State was covered to a depth of from 1 to 4 inches. The snowfall in Crawford and Warren Counties, Pa., 33 to 35 inches, exceeded that for any locality in the State for any November during the past 23 years. In West Virginia the snowfall was from 2 to 6 inches in the more northerly counties and 2 to 10 inches in the mountain sections. In western Maryland the amounts were between 15 and 20 inches.

#### MISCELLANEOUS.

Scattered thunderstorms occurred in Kentucky and portions of Ohio on the 10th and 23d; in Ohio on the 24th and 25th, and generally over the district on the 27th, being severe in some localities on the latter date. Hail fell in Ohio on the 10th, 23d, and 24th, and in Kentucky on the 27th.

A windstorm which attained a maximum velocity of 56 miles per hour did some minor damage to trees and windows in Columbus, Ohio, on the morning of the 10th. During local thunderstorms on the 27th several houses were struck by lightning at Palestine, Ill., resulting in considerable damage to the buildings and more or less injury to several persons. On the same day considerable damage resulted from hail and wind squalls which attended local thunderstorms in southern Indiana.

On the 24th a local storm occurred near Elk Knob, Va., which is described by the cooperative observer at that station, Mr. Henry Nicoll, as follows:

About 11 p. m., November 24, a small tornadic storm passed through Hickory Flats, a section situated about 2 miles from this station. The effect of this disturbance, as shown the following morning, was about as follows: The path of destruction was about 100 feet wide and 2 miles long and extended in a southeasterly direction. Fortunately the storm passed close to but one house—that of Mr. J. H. Graham. This residence was moved about 18 inches off its foundation, but his corncrib and barn were destroyed. Corn shocks in the track of the storm were whirled away, and trees of 15 to 16 inches in diameter were twisted off. Many trees were wrenched off close to the ground. The noise made by the storm was alarming. Lightning accompanied the windstorm, but there was very little precipitation. As far as can be learned, this is the first instance of a tornadic wind in this county.

#### NOTES.

*Extension of the river service in Indiana.*—Announcement was made under date of November 21, 1910, of the inauguration of an increased river service for the State of Indiana. Indianapolis was designated as the river-district center, with territory comprising the watershed of the Wabash River, above the mouth of and including the White River.

The special river stations at Elliston, Shoals, and Terre Haute, Ind., have been transferred from the Cairo (Ill.) district, and arrangements have been made for the establishment of similar stations at Attica, Logansport, Bluffton, and Anderson, Ind.; also for the establishment of a special rainfall station at Farmland, Ind. Observations will begin at the new river stations as soon as a river gage at each place is constructed, which will probably be before the end of this year.

*Ohio River improvement.*—The Government engineering party which has been engaged in taking soundings and making preliminary surveys for the location of locks and dams in the upper Ohio River during the past summer and fall completed their work for Lock No. 33, located near Maysville, Ky., about the middle of November; after which they moved farther down the river and began work in the survey for Lock No. 34.

The locks and dams on the Ohio River from Louisville to Henderson, Ky., have been located as follows: The dam on the falls at Louisville, Ky., No. 41, is practically completed and in working order. Its location is 599 miles below Pittsburgh, Pa. No. 42 has been located at a point about a mile below Kosmosdale, Ky., or 623 miles below Pittsburgh; No. 43, 1 mile below New Amsterdam, Ind., or 652 miles below Pittsburgh; No. 44, not yet located; No. 45, near Addison, Ky., or 700 miles below Pittsburgh; No. 46, 3½ miles below Owensboro, Ky., or 748 miles below Pittsburgh; No. 47, 1½ miles below Newburg, Ind., or 771 miles below Pittsburgh; and No. 48, 1 mile below Henderson, Ky., or 804 miles below Pittsburgh.

TABLE 1.—Climatological data for November, 1910. District No. 3, Ohio Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmeasured.	Number of rainy days .10 in or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
<i>New York.</i>																					
Allegany.	Cattaraugus.	1,441	4	33.4	-2.6	62	1	20	18	3.42	2.42	0.43	0.5	19	2	4	24	w.	Charles E. Whitney.		
Bolivar.	Allegany.	1,800	16	34.0	-	60	2	15	21	3.28	+0.62	0.57	32.0	19	3	6	21	w.	Lowell Andrus.		
Franklinville.	Cattaraugus.	1,598	13																Dr. John W. Kales.		
Olean.	do.		2																John W. Alles.		
<i>Pennsylvania.</i>																					
Allegheny.	Greene.	1,135	9	36.0		66	9	15	20	43	1.80	-	0.75	2.0	7	4	8	18	nw.	J. S. Hinerman.	
Baldwin.	Butler.	1,404	4	34.6		63	10	20	7	25	2.09	-	0.42	8.0	12	2	3	25	w.	S. H. Templeton.	
Claysville.	Washington.	1,127	6	36.4		66	9	15	20	43	1.57	-	0.45	4.0	13	4	5	21	nw.	E. T. Buchanan.	
Franklin.	Venango.	955	36	36.0	-3.7	62	2	19	21	30	3.11	-0.12	0.70	6.0	18	2	6	22	w.	F. E. Dixon.	
Greenville.	Mercer.	950	14	35.2	-3.2	63	1	20	21	32	3.61	+0.80	0.76	18.0	11	6	3	21	nw.	A. M. Orr.	
Indiana.	Indiana.	1,350	23	35.8	-5.7	64	1	20	20	37	2.80	-0.06	0.70	6.3	11	2	6	22	w.	E. C. Lorenz.	
Johnston.	Cambria.	1,184	29	36.8	-4.8	68	17	19	20	39	1.98	-1.24	0.38	8.3	19	3	10	17	nw.	Murray Forbes.	
Lyciopps.	Westmoreland.	1,420	34	34.8	-7.2	60	9	21	20	32	2.61	+0.07	0.75	15.8	15				U. S. Weather Bureau.		
Pittsburg.	Allegheny.	842	40	37.1	-5.5	63	9	24	30	1.33	-1.00	0.52	1.6	17	1	6	23	w.	J. G. Apple.		
Saegerstown.	Crawford.	1,118	19	34.8	-3.8	61	1	10	21	33	5.50	+2.05	0.98	33.0	21	0	3	27	w.	W. H. Stoner.	
Skidmore.	Lawrence.	1,000	16	34.6	-	64	1	17	20	40	1.10	-	0.25	3.0	6	3	21	sw.	W. M. Schrock.		
Somerset.	Somerset.	2,250	54	32.0	-6.6	64	1	17	23	7	32	-0.51	-1.09	0.50	8.2	14	0	11	19	nw.	Wm. Hunt.
Uniorntown.	Fayette.	999	27	37.9	-5.3	64	1	17	21	31	5.06	+1.58	0.80	35.2	17	5	0	25	nw.	Anna Simpson.	
Warren.	Warren.	1,137	21	34.4	-4.6	60	1	17	21	31										S. P. Specht.	
<i>Maryland.</i>																			J. S. Miller.		
Deer Park.	Garrett.		16	31.6	-6.4	65	1	2	20	45	3.27	+0.79	0.65	18.0	12					R. E. Weber.	
Grantsville.	do.		16	32.3	-7.3	60	9	18	20	34	3.40	+0.84	1.05	20.0	12						
Oakland.	do.		10	32.2		64	17	22	23	46	2.94		0.65	15.5	17	2	11	17	w.		
<i>West Virginia.</i>																					
Bancroft.	Putnam.	6																	James Hill.		
Beckley.	Raleigh.	2,440	11	35.8	-6.5	68	10	14	19	43	2.25	-0.14	1.00	2.0	5	13	1	16	w.	John A. Ewart.	
Bens Run.	Pleasants.	622	9	37.8		68	9	19	20	41	2.24	-	0.97	3.0	8	12	7	11		J. D. Riggs.	
Bluetield.	Mercer.	2,563	15	39.4	-5.0	68	2	20	12	39	1.80	-0.68	0.75	T.	6	17	5	8		Norfolk & Western Ry.	
Buckhannon.	Unshur.	1,472	20	36.6	-4.2	65	17	15	20	43	1.89	-1.77	0.40	1.5	8	8	2	20		H. A. Darnall.	
Cairo.	Ritchie.	667	8	38.2	-5.0	68	1	15	20	44	1.73	-1.22	0.60	0.5	11	0	11	19	w.	Van A. Zevely.	
Central Station.	Doddridge.	900	11			69	9	11	20	50 <sup>b</sup>	2.21	-0.47							G. W. Sherwood.		
Charleston.	Kanawha.	593	24	43.2		71	1	22	20	40	2.13	-0.83	0.93	T.	8	8	4	18	w.	R. C. Hewes.	
Cremon.	Wirt.	612	10	37.5		68	9	16	20	44	1.97	-0.34	0.32	T.	7	8	3	19	w.	J. M. Reed.	
Cuba.	Jackson.	544	9	37.2		68	1	13	20	42	1.40	-0.72	0.51	0.2	8	7	9	14	nw.	C. T. Perry.	
Elkhorn.	McDowell.	1,733	18	39.0	-0.0	67	8	20	17 <sup>c</sup>	40	1.90	-0.88	0.70	1.5	9	12	2	16	sw.	J. J. Lincoln.	
Elkins.	Randolph.	1,940	11	34.6	-5.0	67	9	15	23	45	2.26	-0.60	0.94	4.3	15	4	4	22	w.	U. S. Weather Bureau.	
Fairmont.	Marion.	879	18	38.0		70	9	16	20	47	2.30	-0.70	0.70	T.	9				nw.	H. Glenn Fleming.	
Glenville.	Gilmer.	738	22	38.6	-4.6	69	9	15	20	45	2.31	-0.81	0.58	T.	7	8	4	18	w.	John Holt.	
Grafton.	Taylor.	985	18	37.0	-6.0	68	9	12	20	44	3.57	+0.49	1.50	3.0	11	8	5	16	w.	John W. Snider.	
Green Sulphur Springs.	Summers.	1,600	14	36.9	-6.3	70	9	14	20	48	1.76	-0.33	0.61	0.8	11	9	5	16	w.	John W. Dalton.	
Hinton.	do.	1,400	21	38.3	-6.9	74	9	21	20 <sup>c</sup>	48	1.20	-1.13	0.62	T.	7	13	5	12	w.	J. B. Lavender, C. E. L. H. Hutchinson.	
Huntington.	Cabell.	510	15	38.9	-4.5	70	9	20	26	43	1.90	-1.05	1.06	T.	7	11	1	18	w.	Geo. T. Atgabrite.	
Lewisburg.	Greenbrier.	2,200	16	36.0	-5.4	63	8	15	20	43	1.53	-1.19	0.80	T.	7	15	3	11	w.	H. C. Ragland.	
Logan.	Logan.	665	8	43.0		75	9	23	19	43	2.45	-	1.20	T.	7	7	6	7	w.	Allen Smith.	
Lost Creek.	Harrison.	1,033	14	36.2	-6.0	69	9	12	20	49	1.84	-0.75	1.03	1.5	9	8	3	19	w.	S. E. Bradley.	
Madison.	Boone.	704	5																Jas. A. Morgan.		
Manington.	Marion.	967	7	36.6		68	9	14	20	47	2.53	-	1.27	2.9	14	5	6	19	w.	C. J. McCarthy.	
Marlinton.	Pocahontas.	2,169	11	32.0 <sup>a</sup>	-6.6	55	9	13	20	35	1.14	-1.90	0.49	T.	4	13	0	11		Horace Atwood.	
Morgantown.	Monongalia.	1,250	36	37.4	-5.8	68	9	18	20	38	2.24	-0.89	1.00	7.0	11	9	14	7	w.	J. E. Matthews.	
Moundsville.	Marshall.	640	8	38.9 <sup>a</sup>		68	9	19	20	42 <sup>b</sup>	1.16	-	0.47	T.	8	4	2	24	w.	Frank S. Evans.	
New Cumberland.	Hancock.	987	10	36.0	-4.5	64	9	14	20	40	1.30	-0.53	0.40	2.0	7	4	2	17	n.	Wm. Ankrum.	
New Martinsville.	Wetzel.	634	17	38.4	-6.0	66	1	20	20	35	1.44	-1.35	0.90	T.	5	11	2	17	n.	Stephen Tully.	
Nuttallburg.	Fayette.	2,262	18	36.5 <sup>a</sup>	-8.3	60	9	18	20	32 <sup>b</sup>	0.92	-1.66	0.36	1.6	10	9	4	23	w.	U. S. Weather Bureau.	
Parkersburg.	Wood.	638	22	38.7	-4.4	69	9	21	20	39	1.64	-1.19	0.84	0.3	9	2	5	23	w.	J. W. Swisher.	
Parsons.	Tucker.	1,662	11	34.6	-7.0	67	17	12	20	49	2.35	+0.01	0.95	7.0	6	6	6	10	w.	J. D. Dadisman.	
Philippl.	Barbour.	1,192	18	37.4	-6.0	69	9	11	21	49	2.98	-0.08	1.32	3.8	14	3	12	15	w.	Dr. J. Cunningham.	
Pickens.	Randolph.	2,785	20	33.6	-6.9	70	9	12	23	45	4.41	+0.05	1.12	15.0	13	7	8	8	w.	W. V. Senter.	
Pineville.	Wyoming.	2	42.6			73	17	21	30	40	3.59	-	1.81	0.2	5	13	11	6	w.	W. D. Holmes.	
Point Pleasant.	Mason.	553	21	39.8	-5.3	71	9	15	20	45	1.93	-1.01	0.70	T.	10	8	2	20	nw.	E. P. Turley.	
Powellton.	Fayette.	904	14	39.3	-5.0	70	9	19	20	44	2.44	-	0.09	0.64	1.0	12	7	13	w.	Wm. E. Ryan.	
Princeton.	Mercer.	2,469	10	35.0		60	9	12	20	39	2.10	-2.00	1.25	2.0	14	10	7	13	w.	C. P. Wangh.	
Robertsburg.	Putnam.	1		38.1		74	1	14	20	45	1.62	-	0.65	T.	6	8	2	22	w.	H. Scott.	
Ryan.	Roane.	639	7	37.1		70	9	12	22	49	1.61	-	0.50	1.5	9	10	3	17	w.	J. W. Shisher.	
Smithfield.	Spencer.	710	7	36.4		61	9	18	20	32	2.75	-	0.50	1.5	11	6	8	16	nw.	A. M. McKown.	
Spencer.	Braxton.	710	5	36.8		75	9	10	20	55	1.78	-0.49	0.47	0.0	7	1	15	14	w.	J. E. Baughman.	
Terra Alta.	Preston.	3,207	10			74	1	16	22	40	2.46	-	0.50	4.0	8	16	3	11		C. F. Dodge.	
Union.	Monroe.	7	35.0			65	9	11	21	40	0.60	-	0.42	0.0	3					Shelton Clark.	
Valley Fork.	Clay.	7																	Miss Blanche Pierson.		
Webster Springs.	Webster.	1,500	7																D. H. Hamrick.		
Wellsville.	Brooke.	1,225	10</td																		

## MONTHLY WEATHER REVIEW.

NOVEMBER, 1910

TABLE 1.—*Climatological data for November, 1910. District No. 3—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.
<b>Ohio—Continued.</b>																		
Gratiot.	Lapeer.	1,000	21	35.5	-5.5	66	9	16	20	41	0.97	-1.77	0.18	1.5	11	6	17	w.
Green.	Adams.	500	17	39.5	-4.7	68	9	19	20	38	1.42	-1.57	0.70	T.	4	12	10	nw.
Green Hill.	Columbiana.	1,135	18	33.4	-5.3	63	1	13	20	40	1.45	-0.75	0.30	4.9	11	6	10	14
Greenville.	Darke.	1,060	24	36.0	-4.3	67	9	19	30	34	2.00	-1.23	0.62	T.	7	8	10	w.
Hillsboro.	Highland.	1,063	31	37.6	-4.6	68	17	21	20	37	2.59	-0.54	1.71	T.	4	4	11	nw.
Ironton.	Lawrence.	575	27	41.0	-3.0	72	9	17	20	46	1.74	-1.02	0.76	T.	7	13	5	sw.
Jacksonburg.	Butler.	975	42	37.2	-4.2	68	9	19	30	36	1.38	-1.75	0.50	T.	7	15	15	nw.
Kenton.	Hardin.	1,015	18	33.8	-6.4	64	9	15	20	35	2.52	-0.96	0.94	T.	6	8	4	w.
Killbuck.	Holmes.	1,087	18	33.2	-4.0	67	9	20	20	35	1.36	-1.37	0.60	1.0	6	10	3	nw.
Lancaster.	Fairfield.	888	15	38.2	-										R. L. Renshaw.			
La vshere.	Adams.	900	7												Miss Ruth Hoffman.			
McConnelsville.	Morgan.	710	26	36.6	-5.4	68	9	14	20	44	1.78	-1.06	0.49	1.0	12	5	19	nw.
Marietta.	Washington.	627	20	39.2	-3.5	66	9	18	20	40	1.79	-1.20	0.72	T.	11	6	19	w.
Marion.	Marion.	980	32	36.4	-4.0	66	1	17	20	35	2.44	-0.75	3.8	T.	2	9	19	w.
Millfordton.	Knox.	1,200	18	35.4	-3.4	67	2	16	20	41	1.68	-0.64	0.54	2.0	7	7	15	nw.
Milligan.	Perry.	875	18	36.0	-5.0	68	9	12	20	44	0.95	-1.29	0.23	1.5	7	6	17	nw.
Millport.	Columbiana.	1,145	18	34.1	-5.0	63	1	14	20	40	1.23	-1.13	0.24	2.6	11	1	5	21
Nellie.	Coshcoton.	850	10	35.0	-5.1	68	9	15	20	43	0.53	-2.03	0.48	T.	2	10	4	18
New Alexander.	Jefferson.	1,050	25	39.0	-2.2	68	2	19	19	26	1.40	-1.34	0.75	2.0	4	7	4	w.
New Berlin.	Stark.	1,100	18	35.8	-3.5	62	1	18	19	31	2.88	+0.57	0.59	11.7	12	4	1	25
New Waterford.	Columbiana.	1,055	16	34.4	-5.0	60	17	15	20	36	2.88	+0.15	14.0	4	6	20	sw.	
Ohio State University.	Franklin.	757	27	36.6	-3.8	67	9	14	20	36	1.07	-1.63	0.37	0.6	7	5	10	w.
Pataskala.	Licking.	997	18	35.6	-4.9	67	9	19	27	41	1.23	-1.72	0.31	1.2	11	3	13	w.
Philo (1).	Muskingum.	1,018	15	36.5	-6.5	67	9	18	20	37	0.96	-1.24	0.24	0.7	7	8	5	nw.
Plains.	Miami.	847	2												Harry L. Roberts.			
Plattsburg.	Scioto.	1,130	17	36.2	-4.9	66	9	19	27	29	1.34	-1.57	0.52	2.0	6	10	6	w.
Pomeroy.	Meigs.	781	26												F. E. Stewart.			
Portsmouth.	Scioto.	527	79	39.1	-5.6	69	1	17	20	39	1.57	-1.39	1.23	T.	6	10	0	20
Prospect.	Marion.	909	2												Dr. H. A. Schermann.			
Rittman.	Wayne.	990	18	35.5	-4.3	63	17	22	7	38	2.14	-0.69	0.62	3.0	10	3	5	22
Shenandoah.	Richland.	1,100	18	34.2	-4.6	66	9	18	20	37	2.26	-0.08	0.78	3.7	12	1	14	15
Sidney.	Shelby.	965	27	36.0	-4.5	67	9	19	20	34	1.95	-1.30	0.92	1.8	7	10	0	20
Somerset.	Perry.	1,080	11	35.5	-7.7	66	9	20	27	35	0.82	-1.75	0.28	1.0	6	8	5	17
Springfield.	Clarke.	1,002	16												W. A. Webster.			
Summerfield.	Noe.	1,187	4	36.1											H. R. McClintock.			
Thurman.	Gallia.	696	17	42.6	-1.4	71	17	24	30	36	1.42	-1.12	0.72	T.	2	6	5	19
Urbana.	Champaign.	1,031	40	35.8	-4.2	67	9	17	19	37	2.20	-1.71	0.50	0.8	7	8	9	nw.
Warren.	Trumbull.	900	21	35.0	-5.3	65	1	19	20	32*	3.41	+0.93	0.64	19.3	16	4	3	23
Waverly.	Pike.	590	27	40.8	-2.0	78	1	14	20	43	2.44	-0.40	0.95	1.2	6	11	5	14
Waynesville.	Pike.	700	25	37.4	-4.4	68	9	21	20	36	0.89	-2.26	0.56	T.	3	9	6	15
Wooster.	Wayne.	1,030	30	34.8	-5.0	66	9	14	20	41	2.36	-0.38	0.73	4.5	10	5	25	nw.
Youngstown.	Mahoning.	846	18												Experiment Station.			
Zanesville.	Muskingum.	700	23												G. R. Patton.			
<b>Virginia.</b>															S. G. Sprague.			
Big Stone Gap.	Wise.	1,540	19	40.0	-3.9	66	9	18	13	38	2.27	-1.44	0.70	T.	6	11	7	12
Blacksburg.	Montgomery.	2,170	19	37.2	-5.1	68	9	15	20	46	2.15	-1.57	0.34	T.	5	10	11	w.
Burke's Garden.	Tazewell.	3,250	15	35.4	-5.0	61	9	7	20	45	2.04	-1.20	0.75	T.	4	11	5	14
Elk Knob.	Lee.	3,243	7	40.5		66	10	19	12	26	2.05		0.82	0.5	11	4	10	nw.
Galax.	Grayson.	2,300	14	38.8		62	17	19	21	37	0.83		0.40	T.	4	17	1	12
Ivanhoe.	Wythe.	2,028	6	37.7		60	9	19	21	31	1.24		0.44	T.	9	14	11	w.
Lebanon.	Russell.	2,131	38.1			67	9	13	20	44	3.49		1.30	T.	7	12	10	nw.
Marion.	Smyth.	2,224	15	37.6	-6.3	66	9	17	17	43	2.93	+0.53	1.60	T.	4	15	6	9
Max Meadows.	Wythe.	2,028	14												Miss Alice G. Jewett.			
Mendota.	Washington.	1,350	1												R. W. Swain.			
Radford.	Montgomery.	1,773	1												S. W. S. Hospital.			
Spear Ferry.	Scott.	1,221	14												James M. Graham.			
Wytheville.	Wythe.	2,293	17	37.8	-5.2	66	9	18	20	36	0.93	-2.11	0.51	T.	7	14	5	11
<b>North Carolina.</b>															C. C. & O. Railway.			
Altapass.	Mitchell.	2,629													J. D. Link.			
Andrews.	Cherokee.	1,800	43.3			71	87	19	20	48	1.74		1.23	0.7	T.	12	5	se.
Asheville.	Buncombe.	2,250	31	41.4	-3.7	68	14	20	30	36	0.35	-2.95	0.24	T.	8	17	5	sw.
Banners Elk.	Watauga.	3,750	2	35.0		62	9	13	20	41	1.39		0.50	0.6	T.	15	8	nw.
Brevard.	Transylvania.	2,230	9	41.4		69	24	16	13	46	0.32		0.33	0.1	T.	22	8	0.
Bryson City.	Swain.	2,000	23												T. L. Lowe.			
Cullowhee.	Jackson.	2,100	14	42.4		72	9	16	13	49	1.10		0.79	T.	6	17	5	nw.
Hendersonville.	Henderson.	2,167	14												W. E. Breese.			
Highlands.	Macon.	3,670	20	40.0	-2.1	62	24	17	47	35	0.00	-5.59	0.00	0.0	T.	18	11	1.
Hot Springs.	Madison.	1,326	12	44.1	-5.7	76	9	19	13	42	1.61		0.81	0.26	T.	7	15	7.
Jefferson.	Ashe.	2,800	3	39.8		68	9	15	20	39	1.26		0.65	0.4	T.	10	3	17.
Marshall.	Madison.	1,646	9	42.6		73	9	18	19	47	2.19		1.51	0.3	T.	5	17	w.
Murphy.	Cherokee.	1,614	34												E. J. Johnson.			
Rock House.	Macon.	3,100	18	43.0	-3.6	64	14	18	12	33	0.83	-1.50	0.60	0.0	T.	4	17	13
Waynesville.	Haywood.	2,756	16	40.9	-4.8	67	1	15	12	46	1.04	-1.45	0.78	0.0	T.	8	18	4
Diamond.	Gilmer.	2,020	20	45.6	-2.9	70	26	22	7	30	1.22	-2.81	0.94	0.0	T.	5	15	7.
Lafayette.	Walker.	841	4	45.2		69	23	22	7	38	1.37		0.97	0.0	T.	3	16	8.
Bridgeport.	Jackson.	660	10												R. L. Moore.			
Decatur.	Morgan.	573	28	47.4	-3.5	73	87	26	4	44	2.07	-1.30	1.32	0.0	T.	15	3	12.
Florence.	Lauderdale.	563	26												Ernest R. Carriger.			
Guntersville.	Marshall.	580	5	46.2		82	25	22	47	39	0.67		0.34	0.0	T.	16	2	12.

TABLE 1.—Climatological data for November, 1910. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.				Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelting.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
<i>Tennessee—Continued.</i>																			
Clinton.	Anderson.	22									1.27	-2.11	0.65	T.	10	13	0	17	sw.
Dandridge.	Jefferson.	6									1.50	0.90	0.0	5	22	0	8	w.	
Decatur.	Meigs.	850	14	43.5	-5.1	73	14	19	4†	44	1.16	-2.50	0.55	0.0	9	16	7	7	sw.
Dickson.	Dickson.	800	14	44.4	-3.0	72	8†	20	12	38	0.00	-4.30	0.00	0.0	0	19	10	1	n.
Dover.	Stewart.	15	45.0	-2.7	74	8†	21	12†	43	T.	-5.08	T.	0.0	0	13	9	8	s.	
Dunlap.	Sequatchee.	726	1	45.0		74	8†	19	12	46	1.50		0.56	0.0	7	13	11	6	s.
Elizabeth.	Carter.	1,575	20								1.40	-0.90	0.50	0.0	6	14	12	w.	
Erasmus.	Cumberland.	1,850	13	40.5	-3.9	71	9	12	13	44	1.63	-2.29	0.90	T.	5	18	8	8	sw.
Florence.	Rutherford.	560	28	44.2	-4.2	69	27	21	4†	35	1.66	-2.01	0.75	T.	5	19	2	9	n.
Franklin.	Williamson.	655	20	43.4	-4.5	71	27	23	4†	37	1.23	-2.45	1.00	0.0	4	16	0	14	n.
Halls Hill.	Rutherford.	841	15	43.4	-3.9	78	9†	21	7	39	1.24	-2.43	0.55	0.0	5	13	4	4	n.
Harriman.	Roane.	983	24	46.2†	-1.6	72	8†	24	4	40	2.60	-1.54	1.05	0.0	4	10	16	10	nw.
Hohenwald.	Lewis.	13	45.4	-4.1	71	26	22	4	40	1.45	-2.31	0.62	0.0	6	10	8	8	n.	
Iron City.	Lawrence.										1.28		0.73	T.	8	14	8	8	w.
Jefferson City.	Jefferson.										1.12		0.74	T.	7	13	7	10	w.
Johnson City.	Washington.										1.28		0.73	T.	8	14	8	8	w.
Johnsonville.	Humphreys.	364	14	44.4	-4.6	72	26	17	6	40	0.80	-3.80	0.39	0.0	6	15	4	11	w.
Kingsport.	Washington.	1,740									1.05	-2.38	0.25	0.0	7	17	0	13	n.
Knoxville.	Roane.	19									1.07	-2.38	0.25	0.0	7	13	9	9	w.
Lebanon.	Knox.	977	39	43.6	-3.5	68	9	26	20	34	0.97	-2.63	0.60	0.0	7	15	5	10	n.
Lewisburg.	Wilson.	522	1	45.2		70	9	20	12	35	1.35		0.55	0.0	0	14	5	7	s.
Livingston.	Marshall.	727	15	45.8	-3.4	75	8	20	4†	44	1.08	-2.19	0.69	0.0	4	12	4	4	w.
Loudon.	Overton.	816	7			71	9	18	12	38	3.46		1.50	0.0	4	17	9	9	w.
Lynnville.	Loudon.	770	22	45.2	-3.4	70	10	21	4	40	1.56	-2.16	0.64	0.0	4	15	9	9	n.
McGhee.	Giles.	6									1.56	-1.91	0.98	0.0	4	15	9	9	e.
McMinnville.	Monroe.	1,011	26	44.2	-4.0	70	8†	21	4	39	1.49	-2.28	0.60	0.1	8	12	8	10	n.
Maryville.	Warren.	1,050	14	44.2	-4.0	70	9	21	13	38	1.38	-2.05	0.74	0.0	8	13	10	7	w.
Mountain City.	Blount.	2,486	13	38.2	-4.1	70	9	13	20	48	2.17	-0.34	0.65	0.0	6	16	12	2	n.
Nashville.	Davidson.	654	39	45.9	-2.8	70	27	26	30	38	1.17	-2.68	0.86	T.	9	15	6	9	nw.
Newport.	Cooke.	1,280	20	42.4	-3.9	65	24†	21	20	33	2.10	-0.80	1.00	0.0	4	20	7	3	w.
New River.	Scott.	1,215	3								1.70		0.80	0.0	3	26	0	4	w.
Palmetto.	Bedford.	770	17	45.7	-4.3	72	8	21	20	39	1.29	-1.79	0.78	0.0	5	16	8	8	n.
Piney Woods.	Hickman.	3	44.6			76	8	18	3†	49	1.42		0.68	0.0	4	15	7	8	n.
Pope.	Perry.	13									1.69	-2.19	1.24	0.0	4				Miss Besse Howard.
Rogersville.	Hawkins.	1,150	25	40.9	-5.3	70	9	17	13	44	1.13	-1.88	0.86	0.0	8	15	7	8	w.
Rugby.	Morgan.	1,410	22	41.8	-3.2	72	9	17	12	47	2.24	-1.47	0.75	0.0	6	12	7	11	n.
Savannah.	Hardin.	442	26	46.6	-2.9	73	27	23	4	37	2.00	-1.84	0.96	0.0	6	13	5	11	n.
Sevierville.	Sevier.	4	41.3			75	27	17	12†	42	1.60		0.90	0.0	9	11	7	12	sw.
Sewanee.	Franklin.	2,000	14	43.4	-5.6	65	8†	20	30	33	1.06	-2.95	0.67	T.	3	14	3	13	nw.
Sparta.	White.	920	20			754	9				1.13		0.75	0.0	5	10*	7*	8	w.
Springdale.	Clayborne.	1,058	20								1.69	-2.19	1.24	0.0	4				W. P. Watson.
Springville.	Henry.	377	7	43.8		74	27	20	18†	41	0.82		0.29	T.	9	18	8	4	n.
Tazewell.	Clayborne.	13									1.49	-2.01	0.85	0.0	5	17	2	11	n.
Tullahoma.	Coffee.	1,075	23	42.8	-4.4	69	14	22	4†	37	1.34	-2.25	0.88	T.	6	13	5	2	n.
Walling.	White.	909	7								1.76		0.65	0.0	6	14	5	11	n.
Waynesboro.	Wayne.	753	24	45.4	-2.9	72	26	22	4	38	2.18	-1.43	0.84	0.1	7	13	10	7	n.
Wildersville.	Henderson.	13	45.4	-4.2	73	26†	22	5	38	1.44	-2.86	0.75	T.	3	13	12	5	n.	
Worsham.	Sumner.	9									2.23		1.45	0.0	6	14	6	10	w.
Yukon.	Lincoln.	850	13								1.69	-2.19	1.24	0.0	4				J. G. Elizer.
<i>Kentucky—Continued.</i>																			
Alpha.	Clinton.	16	45.9	-3.1	70	24	21	20	38	2.20	-1.86	1.80	0.0	3	20	2	8	n.	
Anchorage.	Jefferson.	700	9	38.4	-5.7	69	9	16	17†	37	2.99	+0.06	2.25	T.	6	14	6	10	nw.
Bardstown.	Nelson.	637	14	42.6	-4.2	71	9	18	13	39	1.36	-1.72	1.10	0.0	5	15	0	15	sw.
Beattyville.	Lee.	650	7	38.4		74	1†	14	20	49	3.34		1.74	T.	10	14	5	11	nw.
Beaver Dam.	Ohio.	441	7	41.8		72	9	18	12	44	1.51		1.05	0.0	3	16	0	14	n.
Berea.	Madison.	1,070	9	40.2	-6.5	69	9	16	20	38	2.67	-0.13	1.30	0.0	5	15	3	8	sw.
Bowling Green.	Warren.	500	21	42.8	-4.1	71	9†	20	12	37	1.19	-2.87	0.67	0.0	4	16	1	13	n.
Burnside.	Pulaski.	773	20								1.74	-1.93	1.10	0.0	8	17	3	10	s.
Cadiz.	Trigg.	8									1.64		0.94	0.0	4	15	3	12	w.
Calhoun.	McLean.	307	7	44.0		73	9	21	18	38	1.22		0.58	0.0	4	12	7	11	nw.
Catlettsburg.	Boyd.	544	17								1.91	-2.23	0.98	T.	8	13	3	14	w.
Earlington.	Hopkins.	370	21	42.0	-5.7	72	9	19	12	40	2.80	-1.58	1.61	0.0	4	20	1	9	n.
Edmonton.	Metcalfe.	600	19	42.2	-4.6	69	9	16	12	41	1.22	-2.68	0.50	0.0	6	15	0	10	w.
Eubank.	Pulaski.	1,177	16	40.6	-4.1	69	9	18	20	36	4.29	+1.17	3.77	0.0	6	12	7	11	w.
Falmouth.	Pendleton.	530	21								1.64	-1.98	0.94	0.0	6	15	3	12	w.
Farmers.	Rowan.	668	5	39.7		73	9	13	20	48	1.92		0.85	T.	6	10	9	11	w.
Frankfort.	Franklin.	560	20	39.5	-7.0	65	1†	19	17	34	1.76	-1.65	0.84	0.0	6	16	0	7	sw.
Franklin.	Simpson.	691	17	44.6	-3.6	72	9	22	4†	37	1.03	-2.93	0.31	0.0	5	7	0	2	nw.
Greensburg.	Green.	581	18	39.6	-5.2	68	24	14	12†	45†	2.83	-0.85	2.00	T.	7	22	0	8	n.
High Bridge.	Jessamine.	762	8								2.68		2.20	0.0	7	13	4	13	sw.
Hopkinsville.	Christian.	524	14	43.6	-4.5	70	9†	20	12	37	1.09	-3.39	0.70	0.0	4	20	1	9	w.
Irvington.	Breckinridge.	12									2.00	-2.41	0.85	0.0	4	16	8	6	sw.
Leitchfield.	Grayson.	635	15	42.0	-4.6	70	9	20	18	34	1.62	-2.81	1.27	0.0	3	18	8	4	nw.
Lexington.	Fayette.	989	23	39.6	-5.1	68	9	22	12	27	1.72	-1.76	1.35	0.0	7	11	8	11	w.
Loretto.	Marion.	681	13	40.8	-5.3	69	9												

TABLE 1.—Climatological data for November, 1910. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Greatest in 24 hours.	Number of clear days.	Total snowfall, unmeasured.	Number of rainy days, 0.1 inch or more.	N in b r o f cloudy days.				
<i>Indiana—Continued.</i>																				
Bluffton.	Wells.	835	15	35.2	- 4.7	67	9	15	20	34	3.01	+ 0.12	0.91	T.	9	8	9	13	nw.	
Butterville.	Jennings.	767	25	40.0	- 3.3	70	9	18	18	32	1.79	- 1.91	1.30	T.	5	14	8	w.		
Cambridge City.	Wayne.	941	19	36.4	- 3.8	70	9	19	22	37	1.41	- 1.49	0.75	T.	7	12	0	18	nw.	
Columbus.	Bartholomew.	632	27	37.0	- 5.4	71	9	14	20	39	2.17	- 1.11	1.05	T.	7	13	1	16	sw.	
Connersville.	Fayette.	769	28	37.4	- 3.9	69	9	15	20	40	1.46	- 1.88	0.85	T.	8	6	10	14	w.	
Delphi.	Carroll.	668	25	34.9	- 4.3	70	9	15	19	38	1.74	- 1.44	0.92	T.	3	12	11	17	nw.	
Eminence.	Morgan.	782	4	37.8	- 3.8	63	21	18	20	33	2.10	-	1.57	T.	3	13	4	13	nw.	
Evansville.	Vanderburg.	386	34	42.3	- 3.0	68	17	24	30	28	2.18	- 2.98	1.02	T.	0	5	13	8	nw.	
Farmersburg.	Sullivan.	12	39.0	- 5.0	71	9	15	20	31	1.17	- 1.07	1.00	T.	0	3	9	13	sw.		
Greenfield.	Randolph.	1,101	28	37.1	- 3.5	66	9	23	19	26	2.30	- 0.80	0.61	T.	7	6	2	22	nw.	
Greensburg.	Hancock.	905	7	37.8	- 6.2	61	1	20	13	32	1.53	- 1.50	1.09	T.	5	8	15	7	w.	
Huntingburg.	Decatur.	954	14	37.8	- 4.0	66	9	18	18	40	1.36	-	1.06	T.	0	2	2	11	nw.	
Huntington.	Dubois.	741	17	35.6	- 4.4	66	9	19	20	35	2.07	- 1.17	0.58	T.	2.3	9	7	18	nw.	
Indianapolis.	Marion.	822	39	37.5	- 4.1	78	9	20	30	27	1.90	- 1.62	1.35	T.	6.1	8	10	12	nw.	
Jeffersonville.	Clark.	455	28	41.5	- 4.0	69	9	22	20	35	2.94	- 0.97	2.31	T.	5	14	2	14	nw.	
Judyville.	Warren.	3	34.5	-	69	9	19	19	40	1.23	-	0.75	T.	5	12	9	12	nw.		
Kokomo.	Howard.	840	18	36.1	- 4.7	68	1	15	19	33	1.96	- 1.00	0.65	T.	5	13	12	12	nw.	
Lafayette.	Tipppecanoe.	617	31	34.9	- 4.8	68	9	15	19	36	1.38	- 1.67	0.38	T.	8	12	3	15	nw.	
Logansport.	Cass.	620	30	35.6	- 4.8	68	9	17	19	39	1.75	- 1.40	0.62	T.	5	9	0	21	e.	
Madison.	Jefferson.	460	18	40.6	- 3.5	69	9	20	20	39	2.38	- 0.81	1.62	T.	0	5	16	1	nw.	
Marengo.	Crawford.	363	28	38.8	- 6.1	69	9	16	20	38	2.94	- 1.76	2.20	T.	5	15	10	5	nw.	
Marion.	Grant.	814	24	35.8	- 4.4	68	9	16	19	32	2.77	- 0.36	0.98	T.	1.6	9	7	16	nw.	
Marke.	Huntington.	814	15	34.8	- 5.1	66	9	16	19	32	2.00	- 0.72	1.00	T.	2.0	5	9	9	ne.	
Mauzy.	Rush.	980	30	36.6	- 3.2	71	1	16	22	37	1.42	- 2.09	0.65	T.	0.6	8	10	6	nw.	
Monticello.	White.										0.98	-	0.75	T.	5	16	4	10	nw.	
Moores Hill.	Dearborn.	9	38.2	-	67	9	21	20	32	1.96	-	1.60	0.1	T.	7	14	2	14	nw.	
Mount Vernon.	Posey.	410	24	41.0	- 4.6	71	22	22	24	36	0.64	- 3.27	0.52	T.	0	4	0	9	n.	
Paoli.	Orange.	611	13	39.0	- 5.5	70	9	14	20	41	2.04	- 1.00	1.50	T.	0	6	15	12	3	nw.
Princeton.	Gibson.	481	28	41.6	- 2.3	70	9	18	18	39	1.65	- 1.86	1.45	T.	0	3	24	3	nw.	
Richmond.	Wayne.	972	25	35.6	- 5.2	67	9	17	20	37	1.23	- 1.86	0.55	T.	6	4	11	15	.....	
Rochester.	Fulton.	775	7	36.6	-	64	8	22	20	29	1.39	-	0.42	T.	4	6	5	19	.....	
Rockville.	Parke.	722	24	37.5	- 4.5	68	9	18	19	29	2.99	- 0.45	1.69	T.	4	12	3	15	nw.	
Rome.	Perry.	370	7	43.0	-	73	9	19	12	41	2.25	-	1.29	T.	0	8	12	8	w.	
Salamonia.	Jay.	5	32.8 <sup>a</sup>	-	66	9	15	19	43 <sup>b</sup>	2.26	-	0.66	0.5	T.	6	6	3	20	nw.	
Salem.	Washington.	717	17	39.0	- 5.6	69	9	16	20	38	1.54	- 1.80	0.52	T.	0	6	12	14	nw.	
Scottsburg.	Scott.	570	16	41.0	- 3.9	69	9	20	20	32	1.64	- 1.11	1.51	T.	3	13	9	8	w.	
Seymour.	Jackson.	610	23	39.8	- 3.7	72	9	14	20	37	1.79	- 1.69	1.42	T.	5	15	3	7	w.	
Shelbyville.	Shelby.	6	37.0	-	69	9	17	13	34	1.65	-	0.84	T.	5	4	16	10	nw.		
Terre Haute.	Vigo.	498	20	41.4	- 3.0	69	9	20	20	31	2.34	+ 0.03	2.72	T.	0	6	7	13	nw.	
Veedersburg.	Fountain.	612	11	37.8	- 4.4	70	9	14	19	37	1.04	- 0.51	1.17	T.	7	12	8	10	w.	
Vevey.	Switzerland.	525	29	-																
Vincennes.	Knox.	431	18	39.3	- 2.5	71	9	17	20	30	2.10	- 1.42	1.30	T.	0	5	18	1	nw.	
Washington.	Davies.	484	14	-																
Whitestown.	Boone.	2	34.7	-	68	9	18	19	39	1.63	-	0.90	0.0	T.	5	9	15	6	w.	
Winona Lake.	Kosciusko.	3	35.8	-	65	9	20	7	28	2.22	-	0.92	0.35	T.	3	13	14	14	w.	
Worthington.	Greene.	526	28	39.2	- 3.8	69	9	18	20	40	1.98	- 1.72	1.59	T.	0	5	10	12	nw.	
<i>Illinois.</i>	Edwards.	531	19	40.6	- 3.2	69	9	19	12	37	1.03	- 2.44	0.85	T.	3	18	6	6	nw.	
Charleston.	Coles.	720	25	38.8	- 3.5	70	9	17	20	35	3.42	+ 0.14	3.12	T.	0.1	6	7	16	nw.	
Danville.	Vermillion.	604	9	38.5	-	69	9	18	18 <sup>c</sup>	38	1.85	-	1.39	T.	0.5	5	11	5	14	nw.
Equality.	Gallatin.	421	12	43.2	- 4.7	75	20	20	12	38	0.24	- 2.83	0.10	T.	0	4	18	6	s.	
Fairfield.	Wayne.	495	17	40.5	- 4.9	72	9	17	12	40	0.96	- 2.23	0.98	T.	0	1	13	0	17	nw.
Flora.	Clay.	495	24	40.0	- 2.6	68	23	18	12 <sup>c</sup>	37	0.78	- 2.57	0.59	T.	0	2	15	8	nw.	
Golconda.	Pope.	500	32	42.0	- 4.8	81	27	21	67	40	1.50	- 2.70	1.16	T.	5	16	5	9	nw.	
Hooperston.	Vermillion.	715	8	36.4	-	68	9	14	19	4	0.85	-	0.57	T.	7	14	6	10	w.	
McLeansboro.	Hamilton.	462	27	42.0	- 2.9	76	26	18	30	47	0.56	-	2.01	0.40	T.	0	2	23	2	w.
Martinsville.	Clark.	630	22	39.0	- 3.1	72	9	18	12 <sup>c</sup>	43	3.10	- 0.23	2.50	T.	3	9	10	11	n.	
Mount Carmel.	Wabash.	424	9	39.6	-	70	9	20	20	36	1.74	-	1.12	0.0	T.	0	6	16	3	n.
New Burnside.	Johnson.	556	15	42.6	- 4.8	75	27	20	20	34	0.23	-	3.18	0.23	T.	0	1	17	9	w.
Olnay.	Richland.	486	23	40.8	- 3.3	72	9	17	12	36	2.32	-	1.20	2.04	T.	0	4	12	8	nw.
Palestine.	Crawford.	500	28	40.6	- 2.3	71	9	19	20	39	2.45	- 1.20	2.05	T.	0	4	9	10	nw.	
Paris.	Edgar.	600	17	36.2	- 6.0	69	9	17	10 <sup>c</sup>	35	2.65	- 0.67	2.10	T.	0	2	16	8	nw.	
Philo.	Champaign.	700	26	35.8	- 3.8	69	9	15	19	38	2.69	- 0.41	2.12	T.	4	12	11	7	nw.	
Rantoul.	do.	768	19	37.4	- 2.5	71	9	14	19	36	0.80	- 1.83	0.62	T.	5	14	8	8	nw.	
Robinson.	Crawford.	500	10	40.5	- 3.9	72	9	18	20	38	2.48	- 0.37	1.52	T.	0	5	11	8	nw.	
Summer.	Lawrence.	459	4	40.9	-	68	9	19	12 <sup>c</sup>	35	1.77	-	1.59	0.0	T.	2	11	8	11	n.
Tuscola.	Douglas.	644	17	38.6 <sup>d</sup>	- 2.7	73	9	14 <sup>c</sup>	22	42	1.61	- 0.89	1.25	T.	0	3	16	7	w.	
Urbana.	Champaign.	725	8	36.6	-	70	9	17	20	35	1.20	-	1.01	T.	4	7	18	5	nw.	

<sup>a</sup>, <sup>b</sup>, <sup>c</sup>, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

\* Precipitation included in that of the next measurement.

\*\* Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

‡ Separate dates of falls not recorded.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

TABLE 2.—*Daily precipitation for November, 1910. District No. 3, Ohio Valley.*

Stations.	River basins.	Day of month.																													Total		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
<i>New York.</i>																																	
Allegany.	Allegheny.	.17			T.	*	.29	T.	.24	.05	*	.06	.05	.05	.03	.04	T.	.01		.30	.43	.30	.08	.12	T.	*	.13	.12	2.42				
Bolivar.	do.	.22			T.	T.	.24	.30	.21	.15	.35	.18	.17	.04	.07	.03	.07	.05												3.28			
Franklinville.	do.																																
Olean.	do.	.16	.08					.37	.18			.55	.35	.20	.24	.28	.25	T.	.06											3.86			
<i>Pennsylvania.</i>																																	
Aleppo.	Ohio.	.40																														1.80	
Baldwin.	Allegheny.	.25																														2.09	
Beaver Dam.	Ohio.	.24																														1.32	
Bradford.	Allegheny.	.28																														4.42	
California.	Monongahela.	.28																														1.91	
Clarion.	Allegheny.																																
Claysville.	Ohio.	.35																														1.57	
Confluence.	Youghiogheny.	.08	.10																													1.82	
Davis Island Dam.	Ohio.	.34	T.																													1.48	
Derry Station.	Allegheny.	.54																														2.22	
Franklin.	do.	.38																														3.11	
Frederick.	do.	.74	T.																													2.55	
Greensburg.	Monongahela.	.20	.04																													2.14	
Grove City.	Youghiogheny.	.28																														1.80	
Harris Island Dam.	Ohio.	.40																														3.61	
Indiana.	do.	.31	T.																													1.55	
Irwin.	Monongahela.	.39																														1.79	
Johnstown.	Allegheny.	.13																														1.96	
Lock No. 4.	Monongahela.	.30	T.																													1.76	
Lycippus.	Allegheny.	.35																														2.61	
Parkers Landing.	do.	.26																														3.18	
Pittsburg.	Ohio.	.26			.01	T.	T.																								1.32		
Saegerstown.	Allegheny.	.48																														5.50	
Saltsburg.	do.	.30	.06																													1.90	
Skidmore.	Ohio.																															1.10	
Somerset.	Youghiogheny.	.31																														2.35	
Springdale.	Allegheny.	.37																														1.70	
Uniontown.	Monongahela.	.40																														2.51	
Warren.	Allegheny.	.26			T.	.06	.30																								5.06		
West Newton.	Youghiogheny.	.16	.06																													1.70	
<i>Maryland.</i>																																	
Deer Park.	Youghiogheny.	.24																														3.27	
Grantsville.	do.	.05																														3.40	
Oakland.	do.	.15	T.																													2.94	
<i>West Virginia.</i>																																	
Bancroft.	Great Kanawha.	.22																														1.59	
Beckley.	do.	.45																														2.25	
Bens Run.	Ohio.	.34																														2.24	
Bluefield.	Great Kanawha.	.10																														1.80	
Brandonville.	Monongahela.																															2.25	
Buckhannon.	do.	.40																														1.89	
Cairo.	Little Kanawha.	.05																														1.73	
Central Station.	Middle Is. Creek.																																
Charleston.	Great Kanawha.	.24																														2.18	
Creston.	do.	.31	.03	.37																												1.97	
Cuba.	Sand Creek.	.18	.03																													1.40	
Davis.	Monongahela.	.20																														1.50	
Elkhorn.	Little Kanawha.	.16																														1.58	
Elkins.	Big Sandy.	15	.25	.10																												1.90	
Fairmont.	Monongahela.	.11	T.																													2.26	
Glenville.	do.	.36	.06		T.																											2.31	
Grafton.	Monongahela.	.43																														3.57	
Green Sulphur Springs.	Great Kanawha.	.18	.02																													1.76	
Hinton.	do.	.10																														1.90	
Huntington.	Great Kanawha.	.25	.20		T.																											1.53	
Lewisburg.	Great Kanawha.	.25																														1.84	
Logan.	Guyandotte.	.25																														1.84	
Lost Creek.	Monongahela.	.25																														1.44	
Madison.	do.	.30																														2.42	
Mannington.	do.	.30																														2.53	
Marlinton.	do.	.10																														1.14	
Morgantown.	Monongahela.	.32	.01	</																													

TABLE 2.—*Daily precipitation for November, 1910. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for November, 1910. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for November, 1910. District No. 3—Continued.*

TABLE 3.—*Maximum and minimum temperatures for November, 1910. District No. 3, Ohio Valley.*

Date.	Pennsylvania.				West Virginia.												Ohio.																													
	Greenville.		Pittsburg.		Charleston.				Elkhorn.				Glenville.				Huntington.				Morgantown.				Parkersburg.				Wheeling.				Canton.				Cincinnati.				Columbus.				Dayton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.						
1.....	63	31	62	44	71	40	64	32	65	29	63	30	67	35	63	38	66	38	64	34	68	39	65	45	63	44	65	46	63	44	65	46	63	44	65	44										
2.....	57	39	56	39	59	42	58	40	52	38	59	42	49	39	58	40	62	37	55	34	58	34	56	32	43	30	50	39	56	30	43	33	50	39	43	27										
3.....	45	23	45	35	61	34	43	32	42	33	46	31	45	35	45	38	45	35	53	34	56	32	48	33	53	30	43	30	50	33	46	27	46	27	46	27										
4.....	45	29	44	32	42	39	41	41	29	29	50	24	49	24	45	30	47	30	54	30	56	32	48	33	53	30	43	30	50	33	46	24	46	24	46	24										
5.....	40	25	38	31	48	30	40	24	38	23	45	23	44	26	42	25	41	26	41	25	42	31	43	35	35	30	42	30	42	30	42	30	42	27	42	27										
6.....	37	28	36	28	44	34	49	23	39	27	43	35	43	30	39	31	40	29	41	27	38	25	41	27	36	25	41	27	36	25	41	27	36	25	41	25										
7.....	39	24	43	25	62	30	51	26	48	24	50	19	55	25	46	23	50	25	47	25	44	26	52	37	47	35	49	35	50	34	49	23	50	34												
8.....	40	28	45	34	64	42	57	27	40	24	53	34	54	26	48	37	51	32	48	32	48	32	52	37	47	35	49	35	50	34	49	23	50	34												
9.....	58	28	63	34	70	33	63	38	67	32	68	24	70	27	66	28	69	30	68	27	63	33	70	35	68	33	70	35	68	33	70	35	68	33												
10....	56	36	57	39	70	43	47	33	51	36	55	36	54	33	60	40	54	33	52	32	61	37	57	36	60	36	61	36	60	36	61	36	60	36												
11....	38	29	39	30	43	36	49	24	36	25	45	34	42	33	41	33	40	32	35	34	38	30	37	30	36	29	30	37	30	36	29	30	37	27												
12....	38	28	35	30	40	29	51	27	30	25	45	30	42	29	32	26	34	31	32	32	38	32	41	28	37	32	38	32	41	28	37	32	41	28												
13....	42	32	35	33	43	34	48	30	32	30	30	32	35	30	45	30	34	30	39	33	38	33	46	28	39	31	42	30	46	28	39	31	42	30												
14....	36	31	38	31	44	28	50	35	35	33	39	40	29	42	34	32	32	39	29	40	35	40	31	44	35	40	31	44	35	40	27	40	33													
15....	37	30	35	31	47	33	48	33	31	40	35	44	35	33	30	39	35	37	33	38	32	40	33	37	31	40	33	37	31	40	33															
16....	37	31	35	33	40	35	37	28	32	30	37	34	46	25	33	32	37	34	36	32	38	31	38	33	36	32	38	33	36	32	38	32														
17....	34	29	33	30	43	35	42	20	31	25	37	32	45	25	33	32	36	32	37	32	34	32	37	30	35	28	37	30	35	28	37	29														
18....	31	26	33	27	47	23	43	23	37	23	38	20	46	30	32	28	38	31	31	35	27	46	28	38	31	41	26	41	27	41	26	41														
19....	35	29	34	30	48	27	44	44	44	23	38	22	41	20	43	22	39	30	41	29	44	29	44	30	44	29	44	29	44	30	44	29														
20....	40	23	44	24	49	22	55	20	54	18	50	15	47	20	48	18	47	21	38	10	51	29	43	27	49	25	49	25	49	25	49	18														
21....	40	20	46	29	52	39	53	23	50	20	50	20	54	22	48	32	50	20	51	15	40	31	51	34	44	30	46	25	46	25	46	25														
22....	40	30	39	31	52	35	50	29	38	21	48	33	44	31	43	31	45	29	42	31	43	28	45	35	45	30	45	35	45	30	45	35														
23....	47	27	52	31	68	29	62	25	51	15	62	18	63	23	51	33	60	25	53	21	49	29	60	32	50	30	54	28	54	30	54	28														
24....	50	31	47	37	63	39	65	32	56	56	58	38	61	24	50	33	54	33	49	21	49	34	62	34	55	35	55	35	55	35	55	35														
25....	35	34	44	37	66	42	60	38	52	36	50	43	34	48	38	49	38	44	29	63	32	53	36	50	35	55	35	55	35	55	35															
26....	43	32	39	33	55	30	50	24	42	23	46	33	48	26	42	30	44	31	47	30	42	30	50	33	43	28	47	30	43	28	47	30														
27....	40	23	43	30	57	36	48	31	41	23	43	25	53	27	45	34	43	32	41	25	40	32	55	39	43	33	41	34	43	33	41	34														
28....	40	34	44	34	55	37	55	32	48	32	43	35	46	40	47	33	46	36	41	32	44	27	41	32	55	33	40	35	44	33	41	34														
29....	35	30	34	30	42	30	35	25	32	25	38	31	34	33	33	30	37	31	34	26	36	28	35	29	35	28	35	29	35	28	35															
30....	30	25	30	24	34	28	30	20	25	20	33	27	32	29	30	24	31	26	32	28	33	26	31	23	31	23	31	23	31	23	31	23														
Mns.	41.7	28.8	42.3	31.9	53.2	33.3	49.9	28.1	43.0	26.3	47.7	29.5	48.6	29.2	43.7	31.1	46.1	31.3	44.3	28.2	45.1	30.8	48.2	32.3	43.0	31.1	45.7	29.4																		

TABLE 3.—*Maximum and minimum temperatures for November, 1910. District No. 3—Continued.*

Date.	Kentucky.														Indiana.														Philo, Ill.
	Bowling Green.		Erlington.		Greensburg.		Lexington.		Louisville.		Maysville.		Williamsburg.		Buttermilk.		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.				
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
1....	64	42	69	41	67	26	64	44	67	47	70	32	69	35	64	47	64	51	61	38	68	46	57	45	58	46	61	39	
2....	52	37	49	38	48	37	44	36	52	37	49	37	46	42	57	43	46	34	46	30	54	28	47	28	59	34	42	24	
3....	50	25	47	24	55	23	37	27	39	29	48	30	43	28	55	35	45	28	43	27	43	27	44	24	45	23	48	25	
4....	55	21	56	23	62	19	46	27	52	31	54	25	50	22	54	23	50	30	48	30	49	21	50	26	51	23	48	20	
5....	46	38	43	24	46	46	41	35	43	34	46	25	43	28	41	35	42	32	41	29	43	33	43	34	45	34	42	26	
6....	50	25	51	24	47	25	40	24	46	28	45	25	44	27	49	23	47	28	41	24	37	21	43	23	46	24	42	22	
7....	59	30	67	32	62	20	56	31	60	36	60	25	63	23	58	25	63	36	55	29	55	22	56	27	59	30	52	26	
8....	68	38	71	34	64	20	54	38	66	41	53	36	66	25	58	31	60	41	52	31	50	28	53	38	55	30	52	26	
9....	71	38	72	35	71	29	68	41	70	41	73	27	74	26	70	38	68	46	68	41	67	33	68	42	69	36	69	38	
10....	50	45	49	44	55	29	59	35	60	38	54	29	76	27	62	40	63	36	59	34	63	36	61	37	61	32	61	32	
11....	49	27	47	27	49	25	38	27	42	30	41	24	48	34	42	25	42	30	35	27	40	23	37	27	40	23	34	22	
12....	45	20	47	19	47	14	39	22	44	26	45	21	47	17	44	20	44	25	41	23	40	22	42	19	41	17	41	21	
13....	51	22	51	21	48	14	46	24	48	29	50	20	53	18	51	19	48	33	45	25	42	23	46	22	47	21	46	21	
14....	54	43	51	40	49	18	45	34	48	37	44	27	63	25	47	25	48	37	44	34	41	29	46	35	48	37	45	35	
15....	45	34	44	35	40	30	39	31	41	33	39	30	43	32	43	26	39	36	38	31	35	31	38	33	34	37	37	32	
16....	48	30	46	25	46	30	35	31	38	29	39	31	47	23	37	30	42	29	35	27	33	27	33	28	37	31	33	28	
17....	50	23	45	23	48	19	37	24	40	27	46	31	50	19	35	20	40	26	30	26	33	24	35	21	32	29	32	22	
18....	51	21	52	21	49	18	44	24	49	27	50	19	55	20	46	18	47	27	45	23	40	19	43	20	48	20	47	16	
19....	57	22	58	23	53	18	46	29	47	28	49	19	54	20	48	23	49	29	42	26	41	15	42	18	37	26	41	15	
20....	58	22	59	23	58	16	50	25	52	27	54	18	58	17	52	22	54	28	48	26	48	18	49	22	58	18	49	17	
21....	60	29	58	29	60	16	51	36	54	40	54	19	61	23	53	35	54	36	45	29	43	31	43	32	51	36	45	29	
22....	60	31	61	29	55	26	47	29	49	31	51	29	60	27	47	21	52	31	42	26	42	32	45	19	49	22	45	16	
23....	62	46	68	34	63	26	60	35	63	37	61	23	60	27	60	34	63	42	57	35	55	32	58	36	56	32	58	27	
24....	70	40	70	30	69	24	64	37	65	35	63	26	61	32	62	30	66	38	57	38	50	30	55	35	64	32	58	27	
25....	61	36	62	31	60	24	51	36	56	42	55	37	70	25	62	31	57	40	52	35	51	30	53	29	55	29	53	28	
26....	65	30	64	31	62	25	55	34	57	34	56	24	67	31	54	28	59	38	49	31	47	25	53	31	52	27	52	24	
27....	71	34	71	48	59	45	61	46	56	24	55	43	54	38	68	41	48	38	42	36	50	41	54	45	49	40	48	28	
28....	38	35	35	23	40	38	54	32	46	33	41	40	42	41	54	35	41	38	40	31	42	28	54	32	40	20	34	20	
29....	43	26	40	23	42	27	35	27	40	29	37	20	41	33	40	26	39	28	34	24	33	24	37	23	34	20	34	20	
30....	36	23	33	24	22	29	22	33	25	30	26	35	25	31	22	33	24	25	20	28	20	29	20	32	21	29	21	29	19
Mns..	54.6	31.1	54.5	29.5	54.5	24.6	47.8	31.4	50.6	33.6	50.4	26.6	54.6	27.4	51.0	28.9	51.1	33.5	45.5	29.5	45.1	27.1	46.3	28.7	49.3	29.2	46.3	25.3	